

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-11 and 14 are pending in the application, with claims 1, 5, and 11 being the independent claims. Claims 12 and 13 are sought to be cancelled without prejudice to or disclaimer of the subject matter therein. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Amendments to the Specification

The specification was amended to correct typographical errors.

Allowable Subject Matter

The Office Action indicated that dependent claims 5 and 8-10 would be allowable if rewritten in independent form. Claim 5 has been rewritten in independent form. Applicants submit that claim 5 is now in condition for allowance. Claims 8-10 now depend, directly or indirectly, from claim 5. Applicants submit that these claims are also now in condition for allowance.

Applicants respectfully disagree with the Examiner's statement of reasons for allowance (paragraph 7 of the Office Action), in that the claimed invention is not limited to the examples of FIGS. 3 and 6.

Objections to the Claims

Claim 10 stands objected due to an alleged informality. Claim 10 has been amended. Reconsideration and withdrawal of the objection is requested.

Rejections under 35 U.S.C. § 102

Claims 1-4, 6-7, and 11-12 stand rejected under 35 U.S.C. 102(b) as being allegedly anticipated by U.S. Patent 6,664,824 issued to Laws ("Laws").

Claim 1 has been amended to incorporate allowable subject matter from claim 9, including a transistor in the phase reversal module with a width /length ratio that is double the width/length ratio of transistors in the frequency doubler. Thus, Applicants respectfully request that claim 1 be reconsidered and the rejections be withdrawn. Claims 2-4 and 6-7 depend from claim 1. Applicants submit that these claims are also now in condition for allowance.

The Office Action states that claim 3 is allegedly inherent in Laws. Applicants respectfully disagree. It is not inherent that the duty ratio of the output signal equals the duty ratio of the input signal because conventional frequency doublers typically output non-50% duty ratios. It is the fully differential structure and the width/length ratios of the first, second, and third transistors that render an output duty ratio that is equal to the duty ratio of the input signal. Laws does not teach the equal duty ratios and the Office Action does not provide "a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings" of Laws. *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). In addition, claim 3 is further distinguished by the amendment of claim 1, which it depends from. Thus, Applicants respectfully request that claim 3 be reconsidered and the rejection withdrawn.

Claim 11 has been amended to incorporate subject matter from claim 5 and claim 13. Thus, Applicants respectfully request that claim 11 be reconsidered and the rejection withdrawn.

Claim 12 stands rejected under 35 U.S.C. 102(b) as being allegedly anticipated by U.S. Patent 5,945,878 issued to Westwick et al. ("Westwick"). Claim 12 has been cancelled without prejudice to or disclaimer of the subject matter recited therein. Thus, the rejection of claim 12 has been rendered moot.

Claims 13 and 14 stand rejected under 35 U.S.C. 102(b) as being allegedly anticipated by U.S. Patent 4,813,048 issued to Yamane et al. ("Yamane"). Claim 13 has been cancelled without prejudice to or disclaimer of the subject matter recited therein. Thus, the rejection of claim 13 has been rendered moot. Amended claim 14 now depends from claim 11, which has been amended to incorporate allowable subject matter. Applicants respectfully request that claim 14 be reconsidered and the rejection withdrawn.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Patrick E. Garrett
Attorney for Applicants
Registration No. 39,987

Date: 7/27/05

1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600
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